

PATENT ABSTRACTS OF JAPAN

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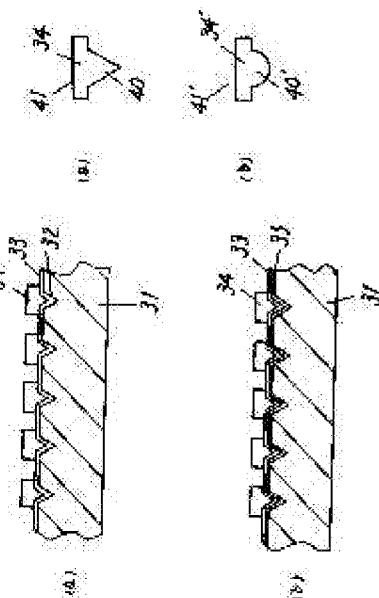
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(54) FORMATION OF METALLIC PROJECTION TO METALLIC LEAD

(57)Abstract:

PURPOSE: To secure the junction between a metallic projection and a semiconductor element electrode and thus enhance the reliability of the junction by providing the metallic projection on a recess provided on a substrate.

CONSTITUTION: The recesses 32 are formed on the substrate 31. A groove is 20W 40µm deep and V type or semi-spherical type. A metallic film 33 of Au, etc. is provided, the metallic projections 34 are formed on the recesses 32 by electrolytic plating or printing, and the end surface opposed to the projections are formed flat. A resin layer 35 can be existent between the substrate and the metallic film. Metallic leads are joined to the substrate provided with the metallic projections by this constitution, the metallic projections are separated from the substrate, and thereafter the metallic projections joined to the metallic leads are joined to the semiconductor element electrodes by pressing and heating. Thereat, a thin oxide film on an electrode surface is easily removed at the tip of the metallic projections, and then the junction which is stable and secure and has high reliability can be obtained.



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